SEGA

SEGA SATURN™

IRON STORM™

The Strategy

Working Designs Ultra Series

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LICENSED BY SEGA ENTERPRISES, LTD.
FOR PLAY ON THE SEGA SATURN™ SYSTEM.

KIDS TO ADULTS
K-A
AGES 6+

T-12701H

We are delighted that you have chosen *Iron Storm* for play on your SEGA Saturn™ System. We hope that you will continue to enjoy this and all of our games for the SEGA Saturn™ System. Due in part to the numerous requests we've had for strategy games, this game now rests in your hands. Please continue to tell us what YOU want, because we are always interested in what YOU think of our games and what games YOU would like to see released in this country.

Handling Your SEGA Saturn Disc

● This Sega Saturn Disc is intended for use exclusively with the Sega Saturn™ System.
● Do not bend it, crush it, or submerge it in liquids.
● Do not leave it in direct sunlight or near a radiator or other source of heat.
● Be sure to take an occasional recess during extended play, to rest yourself and the Sega Saturn compact disc.
● KEEP YOUR Sega Saturn disc clean. Always hold by the edges, and keep it in its case when not in use. Clean with a lint-free, soft dry cloth – wiping in straight lines from center to edge. Never use solvents or abrasive cleaners.

WARNING: READ BEFORE USING YOUR SEGA VIDEO GAME SYSTEM

A very small percentage of individuals may experience epileptic seizures when exposed to certain light patterns or flashing lights. Exposure to certain patterns or backgrounds on a television screen or while playing video games may induce an epileptic seizure in these individuals. Certain conditions may induce previously undetected epileptic symptoms even in persons who have no history of prior seizures or epilepsy. If you, or anyone in your family, has an epileptic condition, consult your physician prior to playing. If you experience any of the following symptoms while playing a video game - dizziness, altered vision, eye or muscle twitches, loss of awareness, disorientation, any involuntary movement, or convulsions – IMMEDIATELY discontinue use and consult your physician before resuming play.

WARNING TO OWNERS OF PROJECTION TELEVISIONS: STILL PICTURES OR IMAGES MAY CAUSE PERMANENT PICTURE-TUBE DAMAGE OR MARK THE PHOSPHOR OF THE CRT. AVOID REPEATED OR EXTENDED USE OF VIDEO GAMES ON LARGE-SCREEN PROJECTION TELEVISIONS.

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IRON STORM™

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NOTE: This product has been rated by the *Entertainment Software Rating Board*. For information about the ESRB rating, or to comment about the appropriateness of the rating, please contact the ESRB at 1-800-771-3772.

SATURN™ BACKUP RAM

Since you cannot save games directly on a compact disc, the Sega Saturn™ is equipped with Internal Backup RAM. Most CD games have a save feature that uses it. If you are having difficulty saving games, you may need to delete some previously saved data or copy some of the save data to a Backup RAM cartridge. If your memory is full, you will need to make room by deleting save data from the Backup RAM.
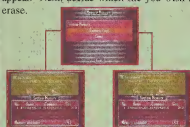
Accessing the Memory Manager

To access the System Settings menu quickly, when you turn on your Sega Saturn™, hold down the Right and Left Shift buttons on the controller (If the game unit is already turned on, press the RESET button while holding down the Left and Right Shift buttons). From the System Settings Screen, select Memory Manager.

From this screen you can either delete specific, any, or all of the save data files in the System Settings menu. The box below describes in detail how to delete save data. *Remember, once save data is deleted it can never be recovered...so don't come crying to us if you delete something you really wanted.*
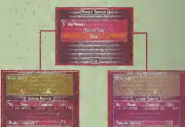
DELETING SELECTED DATA

To delete specific save data on your SEGA Saturn™, select the REMOVE ITEM option from the System Memory box and press the "A" button. The Delete screen then will appear. Next, decide which file you wish to erase.

If you select YES, the save data file will be erased, freeing up more memory for you to save games.

If you select NO, you will return to the Delete screen without losing any save data, wimp.

DELETING ALL SAVE DATA

To clear all of the save data files on your SEGA Saturn™, select the CLEAR option from the System Memory box and press the "A" button.

If you select YES, *all* of the save data will be erased. *Once erased, you can NEVER get it back.*

If you select NO, you will return to the Memory Manager screen without losing any save data.

NOTE: If the message NOT REMOVED! appears, there may be a problem with the system's backup memory. For assistance in fixing this problem, call 1-800-USA-SEGA.

2

KNOW YOUR CONTROLLER

Right Button
★ Moves the cursor forward to the next available unit.

Start
★ Used to finish the turn.

Left Button
★ Moves the cursor backward to the previous available unit.

Direction Key
★ Moves cursor on the screen.
★ Moves cursor on menu items and in boxes that require a response.

X Button
★ Battle animations on/off.

Y Button
★ Moves to the next available unit.

Z Button
★ Accesses the Unit Info. Screen.

C Button
★ Select a unit for movement.
★ Used to confirm menu commands.
★ Accesses the unit menu.

B Button
★ Cancels commands.

A Button
★ Displays map of the area.
★ Used to access game menu.

CONFIDENTIAL INFORMATION

Since you are allowed to change the configuration of the "A" and "C" buttons, the manual is written assuming the pad is in the original configuration.

KNOW YOUR MOUSE

A Button
★ Displays map of the area.
★ Used to access Game Menu.

Start Button
★ Used to finish the turn.

B Button
★ Cancels commands.

C Button
★ Select a unit for movement.
★ Used to confirm menu commands.

HELPFUL HINT

Since the mouse is setup with the "C" button being the primary key, you may find it easier to swap the functions of the "A" and "C" buttons. To do this go to the Game Menu and select "System," then "Input." For more information on the System option of the Game Menu, turn to page 12.

X, Y, Z BUTTONS

Since the mouse has only three main buttons, you must use the Condition window to access the functions of the X, Y, and Z buttons. Push the "C" button on one of them, and they will emulate the selected button.

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STARTING THE GAME

If you press the START button during the opening animation, the Title Screen will appear. IRON STORM allows you to play either in STANDARD or CAMPAIGN mode. STANDARD mode is basically designed as a practice mode. CAMPAIGN mode is designed to allow the player to be one country for the duration of the war. CONTINUE lets the player pick up from a previously saved location.

STANDARD

To start a game in Standard Mode, press the "START" button at the Title Screen. The Select Game Screen will appear. From the Game Select Screen, choose "Standard" and press the "C" button. The Map Selection Screen will appear.

Once the Select Map Screen has been displayed, move the Direction Key to the right or left to choose a battle. After deciding on which map to play, press the "C" button. The selected battle will then be loaded.

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CAMPAIGN

To begin a Campaign, at the Title Screen press the "START" button. From the Game Selection Screen, use the Direction Key to highlight "Campaign" and press the "C" button. The Country Selection Screen will then appear.

Once the Choose Country Screen is displayed, move the Direction Key to the right or left to choose a country. After deciding on a country, press the "C" button. The selected campaign will then begin.

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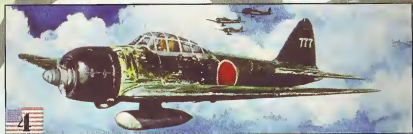
CAMPAIGN CONT.

Next, a brief history of the events leading up to World War II will be displayed. To bypass this history, press the START button on the controller and the introduction will end shortly.

After the brief introduction, a list of countries will be superimposed over a globe. To view which lands a nation occupies, move the Direction Key to that country, and then press the "C" button. You can then use the Direction Key to move the globe in order to view that nation's occupied countries (the map points will flash).

To end the globe screen, select "END." The battle briefing will then begin. This screen gives the player detailed information on the upcoming battle. For further information on the Map Screen see the Map option under the Normal Menu on page 15.

From the briefing screen, select "Exit" to begin the first battle. The future of the world now rests in your hands.

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CONTINUE

To continue a game, press the "C" button at the Title Screen. The Select Game Screen will appear. From the Select Game Screen highlight "Continue" using the Direction Key. Pressing the "C" button will access the load screen if no Backup RAM cartridge is installed.

If you have Iron Storm saves on both your SEGA Saturn and your Backup RAM cartridge, the Select RAM screen will appear. Use the Direction Key to select which RAM to use and then press the "C" button. The Load File screen will be displayed.

If you are using the Saturn's internal RAM, press the "C" button and the battle will be loaded. If you have the RAM Cartridge, more than one save can be selected. In that case, move the Direction Key right or left to select which data file to load. Once you've decided, press the "C" button and the battle will be loaded.

RAM Cartridge
YES
NO

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PURCHASING WEAPONS

In order to win a battle you'll need to maintain a solid front line by purchasing or allocating units. Purchasing equipment is essential in order for you to effectively win the battle. However, since funds are limited, it may be wise to skip a turn between purchasing units to allow the war funds to accumulate.

MAKE Make new weapons. Weapons can only be purchased from headquarters, airfields, and ports. Only one aircraft or vessel can be purchased per airfield or port under your occupation; however, multiple ground units can be purchased and placed outside of the headquarter's building.

To purchase weapons, make sure the cursor is at a location where it is possible to buy units (airfields, ports, and bases). Press the "C" button to call up the unit commission menu.

Next, select "MAKE" and the Purchase Screen will appear. Select a weapon to purchase, then press the "C" button. The unit will be placed on the playfield, and its turn will be ended.

ALLOCATE Allocate units from your last campaign. Units can be allocated at headquarters, cities, airfields, and ports. Only one unit can be placed on each city, airfield, and port. However, multiple units can be placed outside of headquarters. Allocating weapons is preferable to making them since War Funds aren't affected, and the unit's experience is retained. *NOTE: Allocate can only be used in Campaign Mode.*

To allocate, move the cursor to a location where it is possible to produce units (cities, airfields, ports, and bases), and press the "C" button. The Allocation Menu will then appear.

Next, select "ALLOCATE" from the menu. The Allocation Screen will appear. After selecting which unit to allocate, press the "C" button. The unit will be placed on the playfield and its turn will be ended.

If you press the "C" button on the folder icon of the Allocation Menu, a list of units will be displayed according to their type. To allocate units from here, choose a unit, and press the "C" button. The unit will be placed on the playfield and its turn will be ended.

CANCEL Cancels the command.

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BATTLE TACTICS
OCCUPATION

The key to winning a battle is to occupy as many cities, airports, and military ports as possible. The number of locations occupied has a direct bearing on the amount of revenue that will be generated, which, in turn, affects the number of weapons that can be purchased. Cities, airports, and Ports can be occupied by using Infantry men. However, cities, airports, and military ports that are destroyed cannot be occupied, unless they are rebuilt.

TAKE To carry out an occupation, first select the Infantry men to use and press the "C" button. The range of movement for that unit will then be displayed. Move the unit onto the enemy city, airport, or port (within the Infantry division's range) you wish to occupy, and press the "C" button.

Next, the Combat Menu will be displayed. Choose the "DONE" command and the men will be displayed on the city. The Occupation Menu will then be displayed.

If you select "TAKE," the men will take the city, airport, or port. This will increase the amount of war funds generated per turn.

END Cancels the command. The men will stay on the city, airport or port; however, it will not be claimed for their country.

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ENDING YOUR TURN

After you have finished moving all units and/or purchasing new weapons, the turn must be ended in order for the battle to proceed. To end a turn, press the START button. The START Menu will appear with the following two options:

CANCEL Cancels the command.

DONE Ends your turn, and proceeds with the battle.

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BATTLE TACTICS

Success during battle is contingent on how well the copious data screens are understood. Take the time to understand these screens; otherwise, your war effort will be short-lived.

GAME SCREEN

1. **Weapons.** List of weapons for the currently selected unit.

2. **Cursor.** Allows one to select units to move, and can be moved to scroll around the entire playing field.

3. **Unit Data.** Displays key information regarding the highlighted unit's condition.

4. **Condition Window.** Displays the location of the cursor as well as the country's status.

CONDITION WINDOW

1. **Mouse buttons.** Allows access to the commands associated with the X, Y, and Z buttons on the controller.

2. Description of the terrain.

3. The unit's national flag.

4. The color of the selected unit.

5. Displays the current weather status.

6. The X and Y coordinates of the cursor on the playing field.

7. **War funds.** Current military funds.

8. The number of turns since the battle was started.

9. The current date of the battle.

UNIT DATA WINDOW

1. The unit's national flag.

2. Name of the currently selected unit.

3. **Training.** The amount of training experience the unit has received.

4. The maximum number of hexes the unit can move.

5. The current amount of fuel available for the selected unit.

6. The current number of units in the selected squadron.

7. **Experience.** The amount of battle experience a unit has gained from fighting.

UNIT ATTACK DATA

1. The unit's nationality.

2. Name of the currently selected unit.

3. The current number of units in the selected squadron.

4. **Training.** The amount of training experience the unit has received.

5. **Speed.** The speed at which the unit can attack.

6. **Attack.** The unit's attack power.

7. **Experience.** The amount of experience a unit has gained from fighting.

WEAPON SELECTION WINDOW

1. Allows you to select different weapons.

2. The list of the weapons that are available for the unit.

3. **Ammunition.** The number of rounds available for the listed weapon.

4. **Range.** The range of attack for each weapon.

TRANSPORT UNIT WINDOW

1. Allows you to select which unit you wish to unload from the transport.

2. Displays the name(s) of the units that the transport is carrying.

3. Displays the current number of units in the listed squadron.

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NORMAL MENU

By pressing the "A" button, you'll access a map showing the playing field for the current battle. You can move around quickly on the map by using the Direction Key. Once the region you wish to move to is in the square area, press the "C" button to confirm the move.

If you press the "A" button again once the map is displayed, you can access the Normal (or Game) Menu. The options available in the Normal Menu are described below.

SAVE — **Save game.** Games can be saved to either the internal Backup RAM or to a RAM Cartridge. To use the Backup RAM cartridge, make sure the cartridge is inserted in the Saturn **before** you turn on the system. *NEVER INSERT THE CARTRIDGE WHEN THE UNIT IS TURNED ON!*

If the Backup RAM cartridge is inserted, a prompt will appear asking which RAM to use. Highlight "Internal" or "Cartridge," then press the "C" button. The Save Screen will appear.

At the Save Screen, choose which data slot to use, then press the "C" button to save the game. *Note: If internal backup RAM was selected, only the first slot will be available, since only one game can be saved in the Internal RAM.*

Next, confirm the chosen save slot is correct. If the chosen save location is correct, select "YES." If a mistake was made, and you were sharp enough to catch it, select "NO."

Once the game has been saved, a prompt will appear with the option to continue the game, or quit. "Continue" will return to the scenario game screen. "Quit" will end the current game and return to the title screen.

LOAD — **Load game.** Games can be loaded at almost anytime during the game. To load games from the RAM cartridge, first make sure that the RAM cartridge is inserted into the cartridge slot of the Saturn **before** you turn on the system. *NEVER INSERT THE CARTRIDGE WHEN THE UNIT IS TURNED ON!*

If the Backup RAM cartridge is inserted, a prompt will appear asking which RAM to use. Highlight "Internal" or "Cartridge," then press the "C" button. The Load Screen will appear.

At the Load Screen, choose which data slot to retrieve and press the "C" button to load the game.

Next, confirm the chosen load slot is correct. If the chosen load location is correct, select "YES" and the game will be retrieved. If a mistake was made, and you were sharp enough to catch it, select "NO," and select another slot.

REPAIR — **Repair or refuel damaged units.** In order to repair units manually, the "supply" option must be turned off in the System menu. To repair units, make sure that they are placed appropriately: ground units on cities, planes on airfields, and boats at military ports. Every time a repair is completed, war funds will be decreased. *Note: Refuel and Repair cannot be carried out simultaneously.*

REFUEL — Allows units to be refueled. The amount of fuel delivered depends on the amount of war funds available.

REPAIR — Allows units to be repaired. After selecting "REPAIR," damaged units in the selected squadron will be restored. This may be required to be performed several times before the unit is returned to full strength.

NEXT — Moves to the next unit requiring aid that is placed appropriately.

NEXT — Moves cursor to next available unit that can be moved.

BASE — Returns cursor to the home base.

SYSTEM

System settings. Allows the following system options to be modified.

SIGHT

Determines how the enemy units are displayed on the screen.

If this option is turned on, you can only see enemy units that are within a few hexes of your units. This is the most realistic setting, but it makes the game harder. Turning this "on" turns off the enemy movement display.

If this option is turned off, all enemy units are visible on the screen. This is less realistic, but easier for the novice player. Turning this "off" also turns on the enemy movement display.

WEATHER

There are four different weather conditions that may be encountered during the game: clear, cloudy, rain, and snow.

If this option is turned on, weather is active and will affect all units. If the weather becomes to severe, this can prevent units from proceeding or attacking. This is the most realistic setting, but also more difficult.

Weather conditions will not be displayed when the option is turned off. This is less realistic, but easier for novice players.

HEXES

Divides the playing field into hexes.

If this option is turned 'on,' the playing field is divided up into a series of visible hexes at all times. This makes it easier to estimate distances between Ally and enemy units.

If this option is turned off, the hexes will only be visible when moving units. It may be advantageous to turned hexes 'off', since this allows an unobstructed view of the terrain.

SYSTEM CONT.

ANIME

This refers to the 3D rendered animations of units engaging in battle.

If this option is turned 'on,' the battles will be displayed in glorious 3B on each encounter. When 'off' is selected, the animation will be replaced by summary boxes at the bottom of the screen. The "X" button on the controller can also turn this on and off directly from the playfield.

SUPPLY

Determines how troops will receive supplies during the battle.

By having supply on, supplying fuel and weapons to units that are in need of supplies is handled by the CPU. In this case, fuel and weapons will be supplied even though it may not be absolutely necessary. This command is very useful for players with copious war funds.

If the option is off, repairs and refueling will be handled manually by the player. If war funds are tight, this is the preferred setting.

SOUND

Allows sound options to be modified.

AUDIO. Turns ON or OFF BGM (music) or SE (sound effects).

BGM SEL. The BGM of different nations can be assigned here. To change music, use the Direction Key to highlight the music, and then press the "C" button to scroll through the different themes are available. Once the desired music is selected, press the "B" button to return to the System Menu.

SND TEST. Sound test. Plays the different musical themes, as well as the sound effects used during the game.

OPTION

This is only available in the STANDARD MODE. With this, one can decide which forces the CPU will control. Note that the USER must control at least one force.

NORMAL MENU

INFO

Unit information. There are two information screens available to allow viewing unit's information. The following is a brief description of the screens.

INFO SCREEN 1

In this list, units are divided into five divisions: fighter planes, bombers, ground forces I & II, and military vessels. Choose which division to view, then press the "C" button. A list of the units in the selected class will then be displayed. Move the cursor to the desired unit and press the "C" button. The unit's statistical data will then be displayed. *Note: If the "C" button is pressed when the unit is highlighted, you will be moved to its location on the map, unless it has not been deployed. In that case, the unit may only be removed.*

1. Displays the national origin of the unit.
2. Data of the selected unit.
3. Location of the selected unit.
4. Accesses info screen 2.
5. Name of the unit.
6. Number of units.
7. Maximum fuel and current fuel of the unit.
8. Training experience. "A" is best.
9. Battle Experience. "A" is best.
10. Status of the unit. "GO," unit is on the map. "ALT," unit hasn't been allocated. "TRN," unit is loaded on a transport.

INFO SCREEN 2

After switching to Info Screen 2, the Direction Key can be used to scroll through the list of units. The divisions are the same as on Screen 1. *Note: If you press the "C" button while the unit is selected, you will be moved to its location on the map.*

1. Unit number.
2. Name and type of unit.
3. Number of units.
4. Order of energy consumption.
5. Level of experience.
6. Level of training experience.
7. X and Y coordinates of the specified unit.
8. List type and order of equipment loaded.
9. Status of the unit. "GO," unit is on the map. "ALT," unit hasn't been allocated. "TRN," unit is loaded on a transport.

UNITS

Allows the units currently under development to be viewed. It is useful to view this option when it comes to production, placement, and upgrading equipment. *NOTE: This option is only available in Campaign Mode.*

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STATUS

Displays the nation's status during the battle. The following two screens display each nation's overall and individual unit condition.

STATUS SCREENS

1. Selects the national condition display.
2. Selects the unit condition display.
3. War expenditure of each nation.
4. Amount of war funds received during each turn.
5. Graphs of income, cities, and forces.
6. Numerical amount of income, cities, and forces.
7. Graphs showing each of the nation's units.
8. Numerical amount of each nation's units.

MAP

Overview of the play area. In Campaign Mode, this will display the nation's status, troops, victory conditions, battle briefing, key bases, and tactical information at any time. *Note: Map conditions change after the battle is over. Make sure to consult these screens again to see the final outcome of the battle.*

STATUS

Gives basic preliminary battle information before the battle.

After the battle, gives more detailed information, including what kind of victory was achieved.

TROOPS

Displays which nations are involved in the current conflict. Also delineates allies and enemies.

After the battle, you can see how the forces fared during the conflict.

TERMS

Displays the conditions to receive a Complete Victory, Victory, or a Defeat.

BRIEFING

Displays conditions and orders from command posts.

Debriefing after a battle summarizes the outcome of the confrontation.

BASES

Key bases are displayed.

MAP

Shows the placement of troops.

TACTICAL

Shows which attack route is the best to win the battle.

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COMBAT MENU

After selecting a unit, the combat menu will be displayed. Once a unit is selected, the possible movement range for that unit will be shown in hexes. The selected unit can only be moved within that range. *Also, you cannot place two units in the same hex (unless it is to load ground units onto a transport ship or planes onto aircraft carriers).* Once a unit has been moved, the Combat Menu will be displayed. Every time a unit is moved it costs energy; once the energy reaches zero, the unit can no longer move until it's supplied. *NOTE: Airplanes will consume a fixed amount of energy every turn, even if they don't move. When they a out of fuel, they crash and are removed from the playfield.*

ATTACK **Initiates an attack on enemy positions.** There are two different kinds of attack available: direct and indirect. The type of attack depends on the unit.

DIRECT ATTACK

Allows an attack on enemies that are only one hex away. Units that have a higher training experience will attack first. If the units have the same training experience, then both units will attack at the same time.

To attack, select the desired attack unit and push the "C" button. The range of movement will then be shown. Move the unit to the desired position and press the "C" button. The unit will move to the destination. To access the Combat Menu without moving a unit, press the "C" button twice in a row without moving the Direction Key.

From the Combat Menu choose "ATTACK." Then choose which weapon to use, and push the "C" button to confirm the selection.

The possible enemy targets will now begin to flash. (If no units can be attacked, nothing will flash.) Use the Direction Key to move the cursor onto the enemy unit, and press the "C" button. The attack will be carried out. After the battle has ended, the unit will be marked with an "E" showing that its turn is finished.

INDIRECT ATTACK

Indirect attack allows attacks on enemy targets that are more than one hex away. The greater the range of attack, the less effective the attack will be.

To attack, follow the same steps as those outlined under Direct Attack. *Note: There is no hex frame for the range of movement for weapons that attack indirectly.*

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REPAIR **Allows units to be repaired or refueled.** To use this command, the unit must be placed at an appropriate repair point: ground units on cities, planes on airfields, and boats at military ports. *(Use supply vehicles to supply units at other points)* The unit's training experience will be decreased by the repair unless they are supplied by a supply vehicle. Rendering aid to a unit costs a specific amount that will be deducted from your war chest. *Note: Supply vehicles cannot be supplied (Duh!).*

REPAIR AT A LOCATION

To render aid at a specific location (city, airfield, or port), the unit must first be placed at that location. Use the Direction Key to highlight the unit requiring repair, then press the "C" button. A cluster of hexes will be displayed showing where the unit can move. Keep the cursor on the unit and press the "C" button again. From the Combat Menu select "REPAIR," and the unit will be fixed.

REPAIR BY A SUPPLY VEHICLE

To render aid by means of a supply vehicle, the supply vehicle must be maneuvered next to the unit in need of aid. With the cursor on the damaged unit, press the "C" button. A frame of hexes will be displayed showing where the unit can move. Keep the cursor on the unit and press the "C" button again. From the Combat Menu select "REPAIR." Press the "C" button. The selected unit will be repaired.

INFO **Information.** Allows one to view information on the selected unit. The displayed information can be used to gauge effectiveness against other units. To view a unit's information before moving it, this command must be selected from the Combat Menu. If the unit has already been moved, or the desired unit belongs to the enemy, simply push the "C" button and the information screen will appear. After reviewing the unit's information, press the "B" button to return to the game screen.

INFORMATION SCREEN

1 Unit name.

2 Maximum number of hexes the unit can move.

3 Unit's defense against air, land, and sea units.

4 Amount of fuel the unit is carrying.

5 The unit's visual search ability. Only if SIGHT is on.

6 Class of unit.

7 Unit's radar (indirect) search ability. Only if SIGHT is on.

8 Unit's attack power against enemy units.

UPGRADE **Upgrades weapons.** A unit can be upgraded once it has reached maximum experience on the graph. The units that are available to carry out this command are dependent on the dates (year, month, day) or original upgrade and improvement. After placing the unit at the appropriate location (ground units on cities, planes on airfields, and boats at military ports), the upgrade command can then be carried out. There must be sufficient war funds available to carry out this command. *Note: A unit cannot be upgraded after it has moved.*

To upgrade a unit, push the "C" button and the range of movement will then be shown, push the "C" button again. The Combat Menu will then be displayed. Next, choose "UPGRADE" and the Upgrade Screen will be displayed. Then, choose which unit upgrade package to use, and then push the "C" button to confirm the decision. The unit will then be upgraded and an "E" will be displayed on the unit symbol.

UPGRADE SCREEN

1. Displays changes, if any, to the unit's fuel, move, and attack. The top number is the unit's current condition, and the bottom shows the new condition.

2. The experience cost for upgrading the unit.

3. Displays changes, if any, to the unit's attack power. The top number is the unit's current condition, and the bottom is the new condition.

4. Displays changes, if any, to the unit's defense.

5. Upgrade packages.

JOIN **Merge two units into one.** Two damaged units can be merged together to form a new unit. When the units are merged, their energy, number of bullets, experience, and training experience will be averaged together. If the combined number of units exceeds 10, you'll receive one full unit of 10, and the remainder will be left with the other unit. *Remember: Units can only be joined if they are the same type.*

To join two units, push the "C" button and the range of movement will then be shown. If the unit doesn't need to be moved, press the "C" button; otherwise, move the unit next to the other unit. Press the "C" button.

When the Combat Menu is displayed, choose "JOIN". Next, move the cursor to highlight the other unit. Press the "C" button. The units will be joined and an "E" will be displayed on the unit symbol.

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DONE Ends the unit's turn.
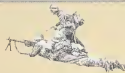
CONVERT **Convert units so they can be transported.** Certain weapons can convert into transport trucks or aircraft so that they can be transported and setup closer to the front lines. Units can be converted at any location, except Air Infantry Men which can only be converted into an Aircraft transport at airfields. Aircraft Transports can convert back to Air Infantry Men at almost any location except on the ocean, and destroyed bridges. *NOTE: Aircraft Transport cannot transform if the weather is Rain or Snow.*

To convert a unit, push the "C" button and the range of movement will then be shown. Push the "C" button again.
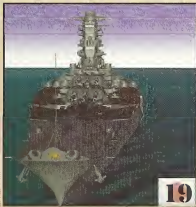
The Combat Menu will then be displayed. Next, choose "CONVERT" and the unit will be converted. The unit's turn will be ended. To convert a unit back to its original form follow the previous commands.

CONVERSION EFFECTS

When a unit is converted into a transport vehicle or plane, the unit will experience the following effects. The unit may not be able to use certain weapons because of the conversion; however there ammunition will not be affected. Fuel will be consumed at the same rate. However, there will be no effect to the unit's number, unless units are lost during a battle.

UNIT CONVERSION

Traction Cannon ← → Transport Truck

Mechanized Infantry Men ← → Transport Truck

Air Infantry Men ← → Aircraft Transport

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COMBAT MENU

ARM — **Change weapons or reload an aircraft.** Once a plane has used all of its bombs, go back to an airfield and choose "ARM" to reload the plane with new bombs. Weapons can be changed by selecting different armament packages. After the plane has been armed, the plane will also be resupplied. *Remember: An airplane can only be armed at airfields.*

To arm the plane, push the "C" button and the range of movement will then be shown. Push the "C" button again. From the Combat Menu choose "ARM" and the armament screen will be displayed.

From the Armament Screen, choose which armament package to use by moving the Direction Key to the right or left, then press the "C" button. The unit will be rearmed, and its turn will be ended.

ARMAMENT SCREEN

1. Unit name.
2. Country Flag.
3. Kind of unit.
4. Unit attribute.
5. Movement range.
6. Unit's maximum energy.
7. Sight range.
8. Radar range.
9. Armament packs.
10. Ammunition of package.
11. Equipment of package.
12. Unit can't/can't be loaded.
13. Weapons.
14. Attack power against bases, aircraft, land units, infantry, ships, and submarines.
15. Range.
16. Accuracy.
17. Number of bullets.

ATTRIBUTE ABBREVIATIONS

AC	Armored personnel carrier.	SHC	Unit with half caterpillar tread (wheels on front, tread on the back).
AIR	Aircraft.		
FC	Sealed unit with caterpillar tread that allows it to travel on water.	WC	Unit with weak caterpillar tread.
FIXED	Non-mobile Unit.	WHC	Unit with weak half caterpillar tread (wheels on front, tread on the back.) This unit's mobility is limited to easy terrain.
FS	Foot soldier.		
FSC	Foot soldiers in a Jeep (car).		
SC	Supply Car.	SHIP	Ship.
SFS	Foot soldier equipped for snow.	XPORT	Transport.

TRY DIFFERENT ARMAMENT PACKAGES

By selecting different armament packages, planes can be armed with different weapons that may prove to be more effective. For instance, a plane can be armed with an additional fuel tank allowing it to fly further. Or, a plane can be armed with torpedoes to attack the enemy's fleet. Fighter planes can also be armed with bombs so that they can be used as either a bomber or a fighter plane.

BOMB — REBUILD — LAND — LAUNCH

These four options occupy the same place on the combat menu; however, each one is different and appears only at certain times. These commands allow some of the most effective combat strategies to be used. Each of these four options are explained below.

BOMB — **Bomb enemy airfields, cities, and bridges.** A player can reduce the amount of war funds the enemy earns per turn by destroying their airfields and cities. This also restricts their ability to place new weapons. Bombing bridges will halt enemy units from advancing. *NOTE: You cannot bomb an area if another unit is occupying that hex.*

In order to bomb an area, first move the bomber to the selected target. Once the aircraft is at that location, press the "C" button. The Combat Menu will appear with the "BOMB" option highlighted.

Next, press the "C" button, and the bombing run will be carried out. After the run, the target will explode and an "E" will be displayed on the unit symbol, signifying the end of its turn.

REBUILD — **Rebuild destroyed airfields, cities, and bridges.** Destroyed property can only be rebuilt with Engineering Corps vehicles. Every time the unit carries out a construction, it will consume one resource from the Supply Corps. Once the airfields or cities are rebuilt they will be claimed for that country. *NOTE: Bridges cannot be claimed.*

To rebuild an area, first move that unit to the selected target. Once the unit is at that location, press the "C" button. The Combat Menu will appear. Choose the "BUILD" option.

Next, press the "C" button, and the men will go to work carrying out the rebuilding project. When they are finished rebuilding, an "E" will be displayed on the unit symbol.

LAND

Unload ground units from a transport ship. There are certain types of terrain that will make it impossible to unload ground units. Therefore, you are only allowed to unload them on the beaches or military ports. After a ground unit has been unloaded, its turn will be ended. They will not be able to move until the next turn. *NOTE: Units can continually be unloaded from the transport ship, as long as there is available space to land the units.*

LOADING UNITS

Before landing ground troops, they must first be loaded on a transport ship. Units can only be loaded on a transport ship at a military port (even if the port is not your own). Transport ships can only hold a certain number of ground units. Check the transport's information to find out how many units it can carry. If a transport ship is attacked after there are a number of units on board, and the ship suffers damage, the number of units on board will also be decreased.

To load a ground unit on a transport ship, first make sure that the transport ship is docked at a military port. Next, choose which unit to load and press the "C" button. A range of movement will then be displayed. Move the cursor onto the transport ship and press the "C" button.

After the Load Menu has appeared, select "LOAD" to allow the unit to be placed on the ship (or "CANCEL" to abort the operation).

LANDING UNITS

To land ground troops, the ship must first be placed at either a beach or a military port. Once the ship is at that location, press the "C" button. The Combat Menu will be displayed with the "LAND" option selected. Press the "C" button and a list of ground units will then be displayed.

Next, select which unit to unload. Press the "C" button to confirm your decision. A hex range will then appear around the ship. Next, choose where to land the unit. Finally, press the "C" button to land the unit.

LAUNCH

Unload planes from aircraft carriers. Planes must be launched **before** the aircraft has moved. Planes can continue to launch from the carrier as long as you have places to put the units. *NOTE: An aircraft carrier can still be moved after planes have been launched.*

LANDING PLANES

Before airplanes can be launched from the carrier, they must be *on* the carrier. Aircraft carriers can only hold a certain number of airplanes (Check the unit's information to find out how many planes it can carry). If the carrier is attacked after there are a number of planes on board, the ship's endurance is decreased, and the number of planes will be decreased accordingly.

To land a plane on a carrier, first select the plane and press the "C" button. A range of movement will then be displayed. Move the cursor onto the carrier and press the "C" button.

After the Load Menu has appeared, select "LOAD" to allow the plane to land on the carrier ("CANCEL" to abort the operation).

LAUNCHING PLANES

To launch airplanes from an aircraft carrier, first select the carrier that is carrying the airplanes, then press the "C" button to pull up the Combat Menu.

With the "LAUNCH" command selected, press the "C" button. Next, select which plane to launch, and press the "C" button again. A hex range will then appear around the carrier. Choose where to place the plane, and then press the "C" button to perform the operation.

REMOVE

Removes a unit from the playing field. During certain stages of a battle it may be necessary to remove a unit from the playing field in order to make room for new weapons. To remove a unit, place the cursor on it. Then press the "C" button to pull up the Combat Menu. Next, choose REMOVE from the Combat Menu, and press the "C" button again. Finally, confirm your decision by choosing "REMOVE." (If you don't want to remove the unit, select "CANCEL.")

TRANSLATION NOTES

Things are not always what they seem. When we looked at this game, still in development, back in June of 1995, we knew it had to be released here, and thought it would be a fairly simple conversion. How wrong we were. What we didn't take into account was that this was a historically based game - the first game based on historical events we'd ever done. As such, every name and place in the game had to be checked for accuracy.

While the Japanese version had all the names for units and places already in it, they were in Japanese Katakana characters, and had to be transliterated back into English, then the spelling checked and corrected. For example, one of the easier plane types to figure out was the one that was translated from Japanese as "Dontores." It was actually supposed to be "Dauntless." That was an English word. Where things got really messy was the Russian and French place names, which were rendered in Japanese, then converted back to English - that's three languages, and lots of room for error.

Another difficulty was in the fact that virtually all the maps with place names differed in some degree. Some used local romanizations for foreign words. For example, "Brussels" could also be rendered "Bruxelles." "Antwerp" could also be rendered "Antwerpen," depending on the atlas used. It was a difficult task to reconcile these problems, and we've done our best, hopefully you think so, too.

In the functionality department, we changed the Anime On/Off menu feature to a button ("X"). This enabled the player to turn on and off the animation sequences much more conveniently than by using the menus. We also corrected a few bugs in the Japanese version, one of them being that the bombing runs ignored the status of the Anime On/Off switch, and always showed them. Destroyed cities, airports, bridges, etc. are all highlighted in red so the ruined status is easier to catch. In the animated battles, the aggressor's stats and flag were also switched to the left side of the screen from the right.

On a related subject, some of you may wonder about the original copyright of the game being 1988. This is because *World Advanced Daisenryaku* (the original Japanese name) is the grandchild of a game called simply, *Daisenryaku*. In fact, *Super Daisenryaku* was published for the PC-Engine (Turbografx, in the US) and we tried to have it ported way back in 1991. Basically, all that remains of that original *Daisenryaku* is the base game logic. Everything else has changed, as you can see by comparing what you have here with the pictures from *Super Daisenryaku* at the right. The only interesting feature that *Super Daisenryaku* had that is missing from IRON STORM was the ability to set the computer to all sides, allowing the computer to play itself unattended. Perhaps that will show up in IRON STORM 2, which will be done, if the demand for this game is strong enough here. For now, though, we're back to RPG's for a while. See you in a few weeks with *Shining Wisdom*.

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